Virginia.—Dale Enterprise, 7th, 8th, 9th, 11th, 13th; Rappahannock, 7th, 9th, 11th, 13th; Lynchburg, 9th, 10th, 12th; Chincoteague, 13th; Bird's Nest, 13th, 14th.

West Virginia.—Helvetia and Parkersburg, 13th.

Wisconsin.—Milwaukee, 6th, 11th, 16th; Green Bay and Embarras, 8th; Madison, 11th.

Wyoming.—Cheyenne, 14th.

The phases of the moon (Washington mean time) during September, as given in "The American Ephemeris and Nautical Almanac" for 1886, are as follows: New moon, 27th, 4 h. 10.4 m.; first quarter, 4th, 14 h. 47.3 m.; full moon, 12th, 17 h. 42.1 m.; last quarter, 20th, 12 h. 47.6 m.; apogee, 10th, 22.3 h.; perigee, 26th, 1.9 h.

MIRAGE.

Maricopa, Arizona: on the morning of the 15th a mirage was seen to the eastward of the station. The mountains were changed into fantastic shapes, resembling houses, ships, etc.

Mirage was observed at other stations, as follows:

Salina, Kansas, 10th, 28th, 30th.

Tecumseh, Nebraska, 30th.

MISCELLANEOUS PHENOMENA.

DROUGHT.

Albany, New York, 9th: the rainfall of the past month has been very small and the drought is becoming severe in this vicinity; many wells are drying, and cattle are suffering from want of sufficient pasturage. The water in the river is low and navigation is nearly suspended.

Tolono, Champaign county, Illinois: the drought which has prevailed here since June was partially broken on the 17th by a heavy rain.

Fort Worth, Texas, 25th: reliable information from the drought-affected region of Texas shows that newspaper accounts have been only slightly exaggerated. The drought extends over the whole of the northwestern portion of the state, from Fort Worth up into the region commonly called the Panhandle. This was a fine grazing country and a large amount of stock is kept here. This year it has been impossible to supply the stock with water, and thousands have perished. People have been obliged to transport water many miles for household purposes. In some parts of this district no heavy rains have fallen during the past fourteen months, and, as a consequence, many of the smaller streams have become exhausted and wells and cisterns are dry.

Boisé City, Idaho: the total rainfall from July 4th until September 30th is only .01 inch. Since the land under cultivation in the valleys is irrigated, the damage here by drought is not great, but the cattle ranges on the mountains and hills are suffering severely from the dry weather.

EARTHQUAKES.

During September many light earthquake shocks were felt in the Southern States, especially from the 1st to the 7th, and on the 21st and 27th. The observers at Pacolet and Kirkwood, South Carolina, state that earthquake shocks were felt nearly every day during the month. The shock of the 3d, at 11.01 p. m., was quite severe at Charleston, South Carolina, and created much excitement. In Augusta, Georgia, at the same time, a sudden motion of the earth was felt of about four seconds' duration, with a jerking motion from southeast to northwest. At Savannah slight shocks were felt at intervals during the 3d, and at 10.50 p. m. a very distinct motion occurred; it was preceded by a rumbling noise, and was accompanied by quick vibrations, which continued fifteen or twenty seconds. This shock was more severe than any felt since that of August 31st. Although no damage was done to buildings or other property, the shock caused much alarm, and many persons left their houses and again passed the night in the open air. The shocks of the 21st and 27th were of sufficient intensity in Charleston, Augusta, and Savannah to rattle windows and cause pictures and chandeliers to sway back and forth, and were accompanied by a low rumbling sound.

The following record of earthquake data for September, 1886, giving the place, day, hour, and, when the information could be obtained, the duration of the shocks, is compiled from the reports of the regular and voluntary observers of the Signal Service:

Florida.—Cedar Keys: 2d, 11.10 p. m.; 3d, 4 p. m.

Jacksonville: 1st, 4 and 4.30 a. m.; 8th, 1.34 p. m.; 9th, 1.47 p. m.

Sanford: 3d, 11.03 p. m., duration five seconds; 5th, 11.10 p. m., duration two seconds.

Archer: 22d, 10 p. m., duration three seconds.

Georgia.—Savannah: 1st, 12.45 a. m.; 1.11 a. m.; 3.44 a. m.; 8.35 a. m., duration three seconds; 2.43 p. m.; 5.12 p. m., duration six seconds; 5.50 p. m.; 11.54 p. m. 2d, 2.10 a. m., duration four seconds; 3.10 a. m., tremors at intervals during the day, accompanied by low, rumbling sound. 3d, 10.50 p. m., duration seventeen seconds, accompanied by rumbling sound. 4th, 3.45 a. m.; 4.22 a. m.; 11.26 a. m.; 3.09 p. m.; 3.18 p. m.; 9.30 p. m., duration four seconds, accompanied by low, rumbling sound; tremors during the night. 5th, 11.16 a. m.; 1.13 p. m.; 8.45 p. m.; 11.07 p. m., accompanied by sound, rattled windows. 6th, 8.37 a. m., tremors during the morning; 4.03 p. m., duration two seconds. 7th, 5.04 p. m., duration two seconds. 8th, 11.15 a. m., duration three seconds; 11.24 p. m. 11th, 2.32 p. m., duration four seconds. 21st, 5.20 a. m., duration twelve seconds, accompanied by rumbling sound, windows rattled. 27th, 5 p. m., duration four seconds.

Augusta: 1st, 4.35 a. m.; 8.10 a. m.; 5.14 p. m.; 11.28 p. m. 3d, 11 p. m., duration four seconds. 4th, 7.03 a. m.; 9.41 p. m.; 11.10 p. m. 5th, 11.05 p. m. 21st, 5.23 a. m., duration four seconds, windows rattled.

Atlanta: 3d, 11.05 p. m.

Athens: 1st, 4 p. m.; 10.45 p. m., duration one second. 3d, 10.10 p. m., duration twenty-five seconds. 4th, 8.35 p. m., duration twenty seconds.

Forsyth: 1st, 8 a. m.; 3d, 10 p. m.

North Carolina.—Charlotte: 1st, 1.04 a. m.; 5.19 p. m.; 10.03 p. m.; 11.10 p. m. 2d, 1.07 a. m. 3d, 11.07 p. m. 4th, 11.45 a. m.; 10.03 p. m. 5th, 5.25 p. m., caused plaster to fall from ceilings. 7th, 5.04 p. m. 9th, 10.19 a. m. 27th, 5.03 p. m.

Smithville: 1st, 1.10 a. m., duration six seconds; 5 a. m., duration five seconds; 8.30 a. m., duration four seconds; 5.13 p. m., duration eight seconds; 8.40 p. m., duration three seconds; 11.55 p. m., duration three seconds. 3d, 11.02 p. m., duration ten seconds, rattled doors and windows. 5th, 9.04 p. m., duration four seconds.

Wilmington: 1st, 1.10 a. m.; 5 a. m.; 8.30 a. m.; 5.13 p. m.; 8.40 p. m.; 11.55 p. m., these shocks were from three to six seconds in duration. 3d, 11.02 p. m., duration ten seconds, preceded by rumbling sound, caused plaster to fall from ceilings. 4th, 11.03 p. m., duration five seconds. 5th, 9.05 p. m., duration five seconds; 11 p. m., duration five seconds.

Chapel Hill: 3d, 11.05 p. m., duration nearly one minute.

Lenoir: 1st, 5 p. m.; 3d, 10 p. m.

Lincolnton: 3d, 11.05 p. m.

Statesville: 1st, 9.10 a. m.; 4.45 p. m.; 11 p. m. 3d, 10.55 p. m. 6th, 9 p. m. 26th, 8 p. m.

Weldon: 3d, 11.03 p. m.

South Carolina.—Charleston: 1st, 1.02 a. m.; 8.25 a. m.; 9.59 a. m.; 5.16 p. m.; 5.52 p. m.; 11.55 p. m. 2d, 11.53 p. m. 3d, 11.01 p. m. 5th, 11.06 p. m., caused plaster to fall from walls. 7th, 4.52 p. m. 8th, 12.55 p. m. 9th, 1.06 a. m., accompanied by a heavy, rumbling sound. 27th, 2.02 p. m., duration two seconds; caused loose plaster and bricks to fall. 28th, 1.00 p. m.

Spartanburg: 1st, 2 a. m.; 5 a. m.; 8 a. m.; 2 p. m.; 4.10 p. m. 2d, 2 a. m.; 4.10 p. m. 3d, 4 a. m.; 4.10 p. m. 4th, 11 p. m.; duration three seconds. 5th, 11 p. m. 7th, 4 a. m.; 4.30 p. m.; tremors during the night. 22d, 4 a. m. 27th, 4 a. m. 28th, 3 a. m.

Tennessee.—Chattanooga: 1st, several light shocks.

Virginia.—Lynchburg: 3d, 11.10 p. m., duration four seconds.

Norfolk: 3d, 11.02 p. m., duration seven seconds.

University of Virginia: 1st, 10 p. m.

Wytheville: 3d, 11 p. m., duration five seconds; 12 midnight. 24th, 9.56 p. m., duration twenty-five seconds; 10.10 p. m., duration nineteen seconds.

The following is an extract from the "New York Sun" of September 6, 1886:

ATHENS, *September 5th.*—Renewed earth shocks have been felt at Pyrgos, in Morea.

The following extracts are from the "New York Herald:"

CITY OF MEXICO, *September* 12, 1886.—An official report to the government from Tequisixtlan, a state of Mexico, says a shock of earthquake, with oscillations from east to west, was felt there between four and five o'clock on the morning of the 3d instant.

CONSTANTINOPLE, *September* 26, 1886.—Sharp shocks of earthquake were felt here and at Smyrna to-day. Slight damage was done.

HAVANA, *September* 28, 1886.—A sharp shock of earthquake was experienced in Saint Thomas on the 20th instant.

FOREST AND PRAIRIE FIRES.

Grand Rapids, Itasca county, Minnesota, 6th: miles of forest to the north of this town are burning, and millions of feet of valuable pine timber have been destroyed.

Calais, Washington county, Maine, 8th: forest fires are burning rapidly in the surrounding country. The water in rivers and lakes has not been so low for years. On account of the low water many saw-mills have been obliged to cease operations.

Fort Bridger, Wyoming, 27th: destructive forest fires are reported to be burning in the Yellowstone National Park.

Boisé City, Idaho, 30th: the dry weather which has prevailed here during the latter part of the summer has been attended by an unusually large number of forest fires in the mountains, the smoke from which has continually pervaded the atmosphere of the valleys since early in August.

Christmas Prairie, Humboldt county, California: forest fires prevailed throughout this county from the 6th to the 30th, burning over numerous ranches. In some instances houses, barns, and fences were destroyed. From the 6th to the 18th the smoke was very dense, especially at night.

Forest and prairie fires have also been reported from the following places:

Fort Buford, Dakota: prairie fires, 3d, 4th.
Huron, Dakota: prairie fires, 6th.
Keeler, California: prairie fires, 15th.
Saint Vincent, Minnesota: prairie fires, 22d, 28th.
Walla Walla, Washington Territory: forest fires, 2d, 15th.
Cape Mendocino, California: forest fires, 8th.
Mount Angel, Oregon: forest fires, 10th.

INSECTS.

Oswego, New York, 20th: the hop crop of New York state, which is now being gathered, is almost a complete failure; the yield of 1886 is of very inferior quality and will be only about one-third the average crop. This loss of two-thirds is caused by the "hop louse," which made its appearence early in August, and multiplied rapidly.

Galveston, Texas, 26th: the recent heavy rains throughout the cotton belt have done considerable damage to open cotton. Since the rains set in cotton worms have multiplied rapidly, and are destroying the late bolls.

Salina, Saline county, Kansas: the warm and dry weather of the month has been favorable to the increase of chinch bugs; these insects have already done considerable damage to fall wheat.

METEORS.

Fall River, Massachusetts: on the 6th, at 8.15 p. m., a bright meteor was seen north of the zenith, moving toward the west; it was about the size of a cocoanut, and burst into fragments of various colors.

Albany, New York: at 8.30 p. m. of the 6th a large meteor, followed by a train of white light, was seen to pass across the sky in a northeasterly direction. The meteor burst when within ten degrees of the northern horizon.

The following description of this meteor is from the September bulletin of "The New England Meteorological Society":

A brilliant meteor was seen on the 6th, about 8.15 p. m., records of it coming from many stations as far separated as Berlin Mills, New Hampshire, on the north, Hartford, Connecticut, on the southwest, and Plymouth, Massachusetts, on the southeast. The sound of its explosion was heard at several points in central New Hampshire; at Epsom it made a rumbling sound; at Meredith Centre the report was equal to that of a cannon; at Wolfborough Junction and Contoocook it made a roaring sound, heavy rather than sharp, accompanied by a trembling that was thought by some to be an earthquake. Estimates of angular altitude made at Manchester and Nashua, New Hampshire, Newburyport, Massachusetts, and Hartford, Connecticut, indicate an altitude of about thirty miles at the time of exposion. At Princeton, Massachusetts, it seemed "near by," but was probably sixty or seventy miles away.

Syracuse, New York: on the 7th, at 8.35 p. m., a large yellow meteor was seen passing from the northwest toward the southeast at an altitude of about 30° from the horizon. Its diameter was equal to half the apparent diameter of the moon. Another large meteor, diameter about four inches, was seen on the 9th, at 9.30 p. m. In moved in a northerly direction and was followed by a train of light five feet in length.

Rochester, New York: at 10.15 p. m. of the 14th a meteor was observed at an altitude of about 45°, passing in a direction a little north of east; it disappeared when about 25° above the horizon.

Winnemucca, Nevada: at 4.30 a. m. of the 17th a meteor was observed passing from east to west in a line parallel to the horizon, and of the apparent size and brilliancy of the planet Venus. Its elevation above the horizon was about five degrees and was visible through 30° of its course, its movement was comparatively slow, requiring three seconds to pass through a course of 30°.

Savannah, Georgia: a very brilliant meteor, of greenish tint, was observed at 9.30 p. m. of the 21st. It moved in an irregular course and disappeared near the northeastern horizon. Several smaller meteors were seen within the next hour, the last one, at 10.25 p. m., being of a whitish color and quite brilliant.

Chattanooga, Tennessee: at 8.53 p. m. of the 22d a large and bright meteor was seen falling from the northeast, taking a westerly course across the sky. The sky was illuminated by its light for nearly ten seconds.

Archer, Alachua county, Florida: at 7.37 p. m. of the 29th a brilliant meteor, accompanied by a hissing sound, was seen passing horizontally westward; its movement was comparatively slow, it being visible at least ten seconds.

Meteors were also observed in the various states and territories, as follows:

California.—Keeler, 22d, 29th.
Connecticut.—Voluntown, 30th.
Dakota.—Webster, 23d, 30th.
Florida.—Limona, 10th, 12th, 15th, 24th, 26th, 28th, 29th; Archer, 11th, 12th, 24th; Manatee, 15th, 23d to 28th.
Illinois.—Charleston, 22d.
Indiana.—Terre Haute, 18th.
Iowa.—Davenport, 4th, 22d, 23d, 24th; Monticello, 7th.
Kentucky.—Richmond, 22d.
Maine.—Bar Harbor, 8th.
Maryland.—Woodstock, 20th, 21st, 23d, 26th, 27th, 30th.
Massachusetts.—Amherst, 1st, 29th; Princeton, 6th; Dudley, 6th, 25th; Fall River, 18th.
Michigan.—Kalamazoo, 24th, 28th.
Nebraska.—Genoa, 21st, 22d, 30th.
New Hampshire.—Berlin Mills, 6th; Nashua, 6th, 18th.
New Jersey.—Beverly, 3d; Clayton, 20th; Dover, 22d, 26th; Egg Harbor City, 29th.
New York.—Syracuse, 9th; Albany, 9th, 13th; Setauket, 14th; Albany, 9th, 13th; North Volney, 17th, 30th.
North Carolina.—Smithville, 16th.
Ohio.—Cleveland and Tiffin, 11th; Jacksonborough, 11th, 28th.
Oregon.—East Portland, 26th.
Pennsylvania.—East Brook, 14th; Pittsburg, 20th.
South Carolina.—Charleston, 5th.
Texas.—Cleburne, 16th, 21st; Rio Grande City, 17th.
Vermont.—Brattleborough, 6th, 10th.
Virginia.—Rappahannock, 13th; Chincoteague, 17th, 19th; Dale Enterprise and Variety Mills, 21st; Wytheville, 29th.

MIGRATION OF BIRDS.

Geese flying southward.—Poplar River, Montana, 10th; Sacramento, California, 12th, 14th; Fort Buford, Dakota, 12th; San Diego, California, 13th; Red Bluff, California, 14th, 18th, 27th, 30th; Stockham, Nebraska, 15th; Allison, Kansas, 16th, 23d, 25th, 26th, 27th, 29th; Fall River, Massachusetts, 16th to 20th; Omaha, Nebraska, 19th; Bainbridge Island, Washington Territory, 23d; East Portland, Oregon, 24th; Port Angeles, Washington Territory, 26th; Saint Louis, Missouri, 26th; Kalamazoo, Michigan, 29th; Bancroft, Iowa, 30th.

Cranes flying southward.—Allison, Kansas, 16th, 23d, 25th, 26th, 27th, 29th.

Ducks flying southward.—Charleston, Illinois, 2d; Lamar, Missouri, 8th, 30th; Memphis, Tennessee, 20th; Merritt's Island, Florida, 20th; Bancroft, Iowa, 30th.

POLAR BANDS.

Polar bands were reported from the following stations:
Napoleon, Ohio, 15th, 18th.
Wauseon, Ohio, 1st, 15th.
Fort Macon, North Carolina, 5th.
Beverly, New Jersey, 13th.
Memphis, Tennessee, 7th.
Archer, Florida, 13th, 26th, 30th.
Riley, Illinois, 2d, 11th, 18th.
Salina, Kansas, 9th, 28th.
Gardiner, Maine, 19th, 25th, 29th.
Dale Enterprise, Virginia, 4th, 10th, 14th, 29th, 30th.
Wytheville, Virginia, 10th, 13th, 20th.

SAND STORMS.

Fort Custer, Montana, 14th, 26th.
El Paso, Texas, 3d.
Fort McDowell, Arizona, 11th, 20th.

SUNSETS.

The characteristics of the sky, as indicative of fair or foul weather for the succeeding twenty-four hours, have been observed at all Signal Service stations. Reports from one hundred and fifty-seven stations show 4,669 observations to have been made, of which eight were reported doubtful; of the remainder, 4,661, there were 4,090, or 87.7 per cent., followed by the expected weather.

SUN SPOTS.

Prof. David P. Todd, director of the Lawrence Observatory, Amherst, Massachusetts, furnishes the following record of sun spots for September, 1886:

Date—September, 1886. Standard time.	No. of new.		Disappeared by solar rotation.		Reappeared by solar rotation.		Total No. visible.		Remarks.
	Gr'ps	Spots	Gr'ps	Spots	Gr'ps	Spots	Gr'ps	Spots	
1, 7 a. m.	1	20‡	0	0	.....	.....	1	20‡	
3, 3 p. m.	1	25‡	0	0	0	0	2	45‡	
4 p. m.	0	0	0	0	0	0	2	45‡	
4, 5 p. m.	0	0	0	0	0	0	2	35‡	
6, 6 p. m.	0	0	0	0	0	0	2	30‡	
7, 9 a. m.	2	4	0	0	1	3	4	40‡	
9, 9 a. m.	1	5	.....	.....	1	5	4	15‡	
10, 4 p. m.	1	40‡	0	5‡	0	15‡	5	55‡	Broad areas of faculæ.
11, 5 p. m.	1	2	1	3	0	0	3	35‡	
13, 5 p. m.	2	15‡	0	0	0	0	5	50‡	
17, 5 p. m.	.....	.....	.....	.....	.....	.....	3	40‡	Broad areas of faculæ.
18, 11 a. m.	0	0	0	0	0	0	3	40‡	
20, 10 a. m.	0	0	0	15‡	0	0	2	25‡	
22, 12 m.	1	10‡	2	25‡	0	0	1	10‡	
24, 10 a. m.	0	0	0	0	0	0	1	3	
26, 11 a. m.	0	0	.....	.....	0	0	0	0	
29, 11 a. m.	1	3	0	0	1	3	1	3	
30, 1 p. m.	0	0	0	0	0	0	1	3	

Faculæ were seen at the time of every observation. ‡Approximated.

Mr. H. D. Gowey, of North Lewisburg, Champaign county, Ohio, reports having observed sun spots on the following dates: 2d, 4th, 6th to 11th, 13th, 14th, 15th, 17th, 18th, 20th, 21st, 30th.

WATER-SPOUTS.

The bark "Elida" reports, September 23d, in latitude N. 38° 40′, longitude W. 70° 10′, passed close to a large waterspout.

Fourth Officer J. Niedermeyer, of the s. s. "Weser," Capt. H. Bruns, commanding, reports having observed a waterspout on the 23d, at 9.45 a. m., in N. 35° 56′, W. 57° 2′.

VERIFICATIONS.

INDICATIONS.

The indications for September, 1886, were made by 2d Lieutenant Frank Greene, Signal Corps, U. S. Army, Assistant, and were verified by 2d Lieutenant J. E. Maxfield, Signal Corps, U. S. Army, Assistant.

The detailed comparison of the tri-daily indications for Setember, 1886, with the telegraphic reports for the succeeding thirty-two hours, shows the general average percentage of verifications to be 73.16. The percentages for the different elements are: Weather, 72.24; wind, 68.66; temperature, 75.44. By states, etc., the percentages are: For Maine, 69.36; New Hampshire, 69.03; Vermont, 65.03; Massachusetts, 66.44; Rhode Island, 69.95; Connecticut, 67.78; New York, 73.11; Pennsylvania, 71.53; New Jersey, 72.56; Delaware, 70.81; Maryland, 74.44; District of Columbia, 72.81; Virginia, 71.72; North Carolina, 75.08; South Carolina, 76.22; Georgia, 82.11; Florida, 79.19; Alabama, 81.42; Mississippi, 77.77; Louisiana, 78.75; Texas, 76.91; Arkansas, 75.61; Tennessee, 76.19; Kentucky, 72.92; Ohio, 71.92; West Virginia, 70.69; Indiana, 73.47; Illinois, 69.72; Michigan, 71.28; Wisconsin, 63.58; Minnesota, 63.33; Iowa, 62.94; Kansas, 72.06; Nebraska, 62.94; Missouri, 75.42; Colorado, 68.50; east Dakota, 61.42.

There was one omission to predict, out of 9,630, or 0.01 per cent. Of the 9,629 predictions that have been made, eight hundred and one, or 8.32 per cent., are considered to have entirely failed; six hundred and seven-three, or 6.98 per cent., were one-fourth verified; 2,035, or 21.13 per cent., were one-half verified; 1,843, or 19.14 per cent., were three-fourths verified; 4,277, or 44.42 per cent., were fully verified, so far as can be ascertained from the tri-daily reports.

CAUTIONARY SIGNALS.

During September, 1886, one hundred and forty-seven signals of various kinds were ordered, of which number, fifty-two, or 35.31 per cent., were fully justified both as to direction and velocity. Of the above signals, twenty-one were ordered for southwesterly winds; of these, ten, or 47.62 per cent., were justified both as to direction and velocity, and twelve, or 57.14 per cent., were justified as to velocity only. Twenty-three signals were ordered for northwest winds; of these, seven, or 30.44 per cent., were justified both as to direction and velocity. Ninety-eight signals were ordered for winds without regard to direction; of these, thirty-one, or 31.63 per cent., were justified. Five on-shore signals were ordered; of these, four, or 80.00 per cent., were justified.

In twenty-five cases winds occurred which would have justified cautionary signals had they been displayed, and in twenty-eight cases winds occurred which would have justified the display of on-shore signals.

COLD-WAVE SIGNALS.

During September, 1886, twenty-seven cold-wave signals were ordered, of this number the verification of twenty-two was determined; of these, fifteen, or 68.18 per cent., were justified.

RAILWAY WEATHER SIGNALS.

Prof. P. H. Mell, jr., director of the "Alabama Weather Service," in the report for September, 1886, states:

The verification of predictions for the whole area was 91 per cent. for temperature, and 87 per cent. for weather.

The following corporations comprise this system: South and North; Montgomery and Mobile; Mobile and Girard; Georgia Pacific; East Tennessee, Virginia and Georgia system in Alabama; Memphis and Charleston; Columbus and Western; Atlanta and West Point of Georgia; Northeastern of Georgia; Western and Atlantic; East Tennessee, Virginia and Georgia system in Georgia; Montgomery and Eufaula; Pensacola and Selma; Pensacola and Atlantic; the cities of Milledgeville, Georgia, and Talladega, Alabama.

LOCAL WEATHER SIGNALS.

Prof. Goodwin D. Swezey, director of the "Nebraska Weather Service," in the report for September, 1886, makes the percentage of verifications for temperature in the state 83.0, and weather 81.9.

Prof. Winslow Upton, director of the "New England Meteorological Society," in the report for September, 1886, states:

The verification of weather signals at New Haven was 90 per cent. for temperature, 83 for weather; at eight stations reporting at the signal office in Boston, 90 for temperature, 80 for weather. Local sunset predictions at Blue Hill for twenty-four hours from midnight were verified, 80 per cent; prediction at 8 a. m., for sixteen hours 83 per cent; the Signal Service indications had a local verification of 63 per cent.

ERRATA.

In the REVIEW for August, 1886, on page 225, under "Tornado studies," the words "geographical mile," wherever they occur, should read "geographical degree." On page 235, in the table "Summary of report from observers—Earthquake of August 31, 1886," "Hollow (?) Springs, Tennessee, observer, N. F. Bryant," should read "Holly Springs, Mississippi, observer, N. T. Bryant."